



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,129	01/20/2004	Hiromu Ando	Q79438	6649
23373 7590 05/31/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER LAMB, BRENDA A	
			ART UNIT 1734	PAPER NUMBER
			MAIL DATE 05/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/759,129

Applicant(s)

ANDO ET AL.

Examiner

Brenda A. Lamb

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 7 is/are rejected.
- 7) ☒ Claim(s) 5-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1,3-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 2-45172 in view of Davis 764,796.

Japan '172 teaches the design of a coating apparatus for coating with coating liquid a surface of a strip-shaped body carried in a fixed direction which is comprised of the following elements: a primary bar 2 extending along a width direction of a carrying plane, which is a carrying path of the strip-shaped body; a secondary bar 1 extending in parallel with the primary bar and disposed at a downstream side of the primary bar; and a between-bars liquid reservoir disposed between the primary bar and the secondary bar for storing the coating liquid at a time of coating of the coating liquid; and an apparatus main body 10 extending below the primary and secondary bar and the between-bars liquid reservoir 18, which as shown in Figure 1 is formed as a space which extends between the primary bar, the secondary bar and backup member for storing the coating liquid at a time of coating of the coating liquid. Japan '172 is silent as to whether the apparatus main body 10 supports the primary bar, the secondary bar from below. However, it would have been obvious to modify the Japan '172 apparatus by supporting the bars from below by supporting the bars using the end walls of the apparatus main body 10 which extend below the bars since it is known to do so as taught by Davis for the obvious reason of simplification in design. Further, Japan '172 shows in Figure 1 that the coating conditions at the primary bar which is supplied with the coating liquid by a coating liquid supply flow path of coating in the reservoir, and the secondary bar are set so where W_1 is a coating amount of the coating liquid that is deposited on the strip-shaped body at the primary bar and W_2 is a coating amount of the coating liquid that is deposited on the strip-shaped body after the strip-shaped body has passed the secondary bar since the secondary bar 1 removes coating from the web and

Art Unit: 1734

applied by the primary bar therefore the total amount of coating left on the strip as the strip passes the secondary bar or W_2 is less than W_1 but fails to teach $1 < W_1 / W_2 < 1.3$. However, it would have been obvious the secondary bar in the Japan '172 apparatus is capable of removing an amount of coating such the ratio of amount of coating on the web left on the web after the strip passes the primary and secondary bar or W_1 / W_2 is such that $1 < W_1 / W_2 < 1.3$ since Japan '172 teaches optimizing the coating amount deposited on the strip-shaped body at the primary bar and after the strip-shaped body has passed the secondary bar. With respect to claim 7, Japan '172 is capable of coating strip-shaped body within the scope of the claim and is capable of coating the substrate with a liquid within the scope of claim since it teaches every element of the apparatus. Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987). "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). With respect to claim 4, Japan '172 shows in Figure 1 that the coating apparatus includes an air-liquid interface forming portion for forming an air-liquid interface, which is an interface between the coating liquid and air, at the between-bars liquid reservoir at a time of coating. With respect to claim 3, Japan '172 is silent as to whether or not the primary bar is wire wound bar. However, it would have been obvious to use as the primary roller 2 in the Japan '172 one that is wire wound such as wire bar 1 for the obvious advantage of greater control

of the coating amount applied by the primary roller. Japan '172 as modified is capable of achieving a coating amount W_1 which is within the scope of the claim since Japan '172 as modified teaches each of the claimed structural elements of the apparatus.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 2-45172 in view of Davis 764,796 and Saito et al 4,263,870.

Japan '172 and Davis are applied for reasons noted above. Japan '172 is silent as to whether or not the primary bar is wire wound bar. However, it would have been obvious to use as the primary roller 2 in the Japan '172 one that is wire wound such as wire bar 1 since Saito et al teaches the use of wire wound bar for applying the coating onto the web to form a coated web for the taught advantage of greater control of the coating amount applied by the primary roller. Japan '172 as modified is capable of achieving a coating amount W_1 which is within the scope of the claim since Japan '172 as modified teaches each of the claimed structural elements of the apparatus.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claims 1,3 and 7 are rejected under 35 U.S.C. 102(e and a) as being anticipated by Kanke et al 2003/0049379 or under 102(a) as being anticipated under 102(a) by Japan 2003-53245 (Kanke et al).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome

either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Kanke et al teaches as shown in Figure 2 a coating apparatus for coating with coating liquid a surface of a strip-shaped body carried in a fixed direction, the apparatus comprising: a primary bar extending along a width direction of a carrying plane, which is a carrying path of the strip-shaped body; a secondary bar extending in parallel with the primary bar and disposed at a downstream side of the primary bar; and a between-bars liquid reservoir disposed between the primary bar and the secondary bar for storing the coating liquid at a time of coating of the coating liquid, wherein the coating apparatus further comprises a backup member, an assembly of elements which include platform elements and bar supporting elements, supporting the primary bar and the secondary bar from below, wherein the liquid reservoir is formed in the space defined by the primary bar, secondary bar and backup member. Kanke et al apparatus is capable of providing conditions at the primary bar and the secondary bar such that $1 < W_1 / W_2 < 1.3$ where W_1 is a coating amount of the coating liquid that is deposited on the strip-shaped body at the primary bar and W_2 is a coating amount of the coating liquid that is deposited on the strip-shaped body after the strip-shaped body has passed the secondary bar via adjustment of the secondary bar as taught by Kanke et al. With respect to claim 7, Kanke et al is capable of coating a strip-shaped body within the scope of the claim and is capable of coating the substrate with a liquid within the scope of claim since it teaches every element of the claimed apparatus. Note it has been held

that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987). "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). With respect to claim 3, Kanke et al teaches the primary bar is wire bar. Kanke apparatus is capable of achieving a coating amount W_1 within the scope since it teaches the apparatus has each of the claimed structural elements set forth in claim.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claims 1, 3 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Ichikawa et al 2004/0043154 or under 102(a) as being anticipated under 102(a) by Japan 2003-275642 (Ichikawa et al).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Ichikawa et al teaches as shown in Figure 1 a coating apparatus for coating with coating liquid a surface of a strip-shaped body carried in a fixed direction, the apparatus

Art Unit: 1734

comprising: a primary bar extending along a width direction of a carrying plane, which is a carrying path of the strip-shaped body; a secondary bar extending in parallel with the primary bar and disposed at a downstream side of the primary bar; and a between-bars liquid reservoir disposed between the primary bar and the secondary bar for storing the coating liquid at a time of coating of the coating liquid, wherein the coating apparatus further comprises a backup member, an assembly of elements which include platform elements and bar supporting elements, supporting the primary bar and the secondary bar from below, wherein the liquid reservoir is formed in the space defined by the primary bar, secondary bar and backup member. Ichikawa et al apparatus is capable of providing conditions at the primary bar and the secondary bar such that $1 < W_1 / W_2 < 1.3$ where W_1 is a coating amount of the coating liquid that is deposited on the strip-shaped body at the primary bar and W_2 is a coating amount of the coating liquid that is deposited on the strip-shaped body after the strip-shaped body has passed the secondary bar via adjustment of the secondary bar as taught by Ichikawa et al. With respect to claim 7, Ichikawa et al is capable of coating a strip-shaped body within the scope of the claim and is capable of coating the substrate with a liquid within the scope of claim since it teaches every element of the claimed apparatus. Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987). "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir.

Art Unit: 1734

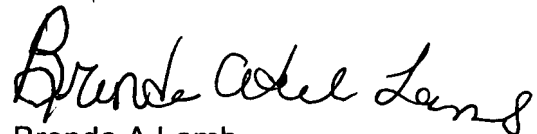
1990). With respect to claim 3, Kanke et al teaches the primary bar is wire bar. Kanke apparatus is capable of achieving a coating amount W_1 within the scope since it teaches the apparatus has each of the claimed structural elements set forth in claim.

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Claims 5-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla, can be reached on (571) 272-1231. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brenda A Lamb
Examiner
Art Unit 1734